

# Reducing Inequality through Social Security: An Exploration of Two Policy Proposals

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**Reducing Inequality through Social Security:  
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## **Reducing Inequality through Social Security: An Exploration of Two Policy Proposals**

### **Overview**

Social Security has proven effective at preventing poverty across the lifespan, but particularly for seniors, and is central to the preservation of retirement as a social norm in the US.<sup>1,2,3,4</sup> Despite this, Social Security's financing is a contentious political issue. Much of the research with regard to changes in Social Security's implementation has been focused on what effects a proposed change will have on its actuarial balance, or its ability to remain solvent over an extended time period.

Wage income inequality has risen steadily since the late 1970s, and has become increasingly politically relevant since the 2008 financial crisis. Trends in the growth of income inequality are stark and well documented.<sup>5</sup> It will be useful to explore the extent to which changes to existing institutions will affect wage income inequality.

With these points in mind, we focus on one rarely studied aspect of Social Security: How will U.S. wage income inequality be affected by changes in the maximum taxable earnings cap? Will raising or removing what is often referred to as the salary cap cause a significant reduction in inequality without a simultaneous change in the benefit formula?

### **History of Social Security, Research**

The Social Security Act of 1935 was signed into law for the explicit purposes of reducing old-age poverty, providing unemployment insurance, and assisting states in their efforts to support women, children, and the disabled. Initially, the program excluded domestic and agricultural workers, thereby excluding the majority of Black and Hispanic Americans by proxy.<sup>6,7</sup> In 2016 dollars, over \$600 billion in benefits were denied to agricultural and domestic workers between 1937 and 1954, when most excluded workers were brought into the system through a series of amendments (although those that remained excluded were disproportionately people of color). By 1972, Social Security had evolved to provide all of these

benefits at a federal level. The program now serves as an integral part of poverty prevention throughout the life cycle, and disproportionately benefits women and minority groups throughout the country.<sup>8</sup>

In spite (or because) of its disproportionate benefit to women and minorities, budgeting for Social Security has been a perennial political battleground since the early 1980s.<sup>9</sup> Since the initial cohort of Social Security beneficiaries was able to collect benefits without having contributed a lifetime's worth of contributions, the program was effectively designed to draw down its Trust Fund without some additional source of revenue. This built-in budgetary shortfall has been exacerbated by demographic and economic trends. Cohorts of beneficiaries have grown in size over time, and an increasing share of national income currently goes untaxed due to Social Security's unique funding structure. Unlike Medicare, wage income for Social Security is only taxed up to a set amount, determined each year. In 2016, that amount was \$118,500.

This has spurred a robust research interest in devising policy changes that would reduce or eliminate the program's deficit problems and restore it to long-term solvency. Most research on the impacts of changes to Social Security's taxation and benefit strategies are devoted to studying actuarial balance, or how to keep Social Security's outlays in line with its revenues.

#### **Note on Social Security Benefit Calculation**

Workers in occupations covered under Social Security's Old-Age, Survivor, and Disability Insurance program (OASDI) have a claim on future benefits relative to the level of their lifetime earnings. A Social Security beneficiary's monthly benefit is calculated using the Average Indexed Monthly Earnings (AIME), which is based on up to 35 years of earnings. The AIME is then used to calculate a Primary Insurance Amount (PIA), which represents the amount a beneficiary would receive if they retired at the SSA's stipulated "normal" retirement age.

The PIA is calculated as the sum of three separate percentages of portions of the AIME, separated by two “bend points.” The AIME amount is taxed at 10% up to the first bend point, 68% between the first and second bend point, and at 85% after the second bend point. The precise value of these bend points changes over time; in 2016, the first bend point is \$856, and the second bend point is \$5,157.

The PIA calculation is progressive in the sense that beneficiaries with higher AIME amounts see their benefits taxed at a higher level than those who had lower earnings over their lifetimes. This built-in progressivity accounts for the benefit scheme’s disproportionate importance to the poor. While Social Security’s benefit scheme is progressive, the revenue side is regressive. This is because the Federal Insurance Contributions Act payroll tax known as FICA is applied equally regardless of income and is capped at a stipulated amount—it is currently 12.4%, divided equally between employees and employers.

### **History of Raising Taxable Maximum**

Social Security’s revenue generating policy is unique in that earnings covered under the program are only taxed up to a set amount. This taxable maximum (“tax-max” or “salary cap”) has fluctuated in terms of the percentage of income it has allowed to go untaxed throughout the history of Social Security.<sup>10</sup> In 2014, there was more than one trillion dollars above the taxable maximum, which left 82.7% of income subject to the tax.<sup>11</sup> This is in line with the historical average of around 83%, although in 1983 the tax-max covered 90% of all income. This 90% figure is targeted by some policymakers as a reasonable goal for future coverage. Others have viewed both the 83% historical average and 90% modern maximum as arbitrary contingencies of history, with no explicit rationale for policy.<sup>12</sup>

Since 1982, the tax-max has been indexed to average wage growth. When the wages of those at the top of the income distribution, above the tax-max, grow at a faster rate than those of lower-income earners, tax revenues necessarily fall. In fact, had the dispersion in earnings that took place between 1982 and

2009 not occurred, Social Security revenues that year would have been 6% higher.<sup>13</sup> Further, after 1990, payroll tax revenue began to fall as a percent of GDP, from 4.4 percent to 3.8 percent by 2013. This suggests an erosion of Social Security taxable income with respect to GDP.<sup>14</sup>

### **History of Special Minimum Benefit**

Social Security's special minimum benefit was introduced in 1972 to account for individuals who had low earnings throughout their careers.<sup>15</sup> In 2015 the benefit applied to those with at least 11 years of earnings above \$13,230. Those receiving the minimum benefit can earn up to \$830 per month, conditional on having 30 years of coverage (YOC). The full amount is currently prorated for those who do not have the full 30 YOC; for example, the average benefit for a person with only 11 YOC was just under \$40 per month in 2015. The special minimum benefit has been criticized because it is indexed to prices, rather than wages and has eroded over time.<sup>16</sup> Given that wages tend to rise faster than prices, the special minimum benefit does a less adequate job of replacing poor retirees' incomes.

### **Objective**

*Our overall research objective is to assess the impact of eliminating the tax max on wages on economic inequality. More specifically, we will analyze the impact of eliminating the tax max with and without raising the special minimum benefit on a range of wage inequality measures.*

### **Methodology**

We began our analysis using publically available Social Security Administration data on the wage distributions from 2013 and 2014. Our goal was to estimate the impact on inequality of removing the cap on taxable earnings and retroactively applying the 12.4% tax rate to income above that cap under current law. We were able to estimate a change in the Gini coefficient of 0.0101 in 2013, and 0.0104 in 2014 using this method. This initial methodology was limited in that it did not allow us to observe the

effect of removing the earnings cap on inequality over time, nor did it incorporate the projected effect of introducing a modified special minimum benefit into the Social Security system.

We next partnered directly with the Social Security Administration's Office of Retirement and Disability Policy, leveraging their access to administrative earnings data and the MINT7 (Modeling Income in the Near Term) model.

We proposed that they project Gini coefficients, and income at the 90<sup>th</sup>, 50<sup>th</sup>, and 10<sup>th</sup> percentiles from 2020 to 2030 under the following scenarios using administrative data:

1. Current Law (Scheduled Benefits)
2. Option One: Eliminating the Maximum Taxable Earnings Cap
3. Option Two: Eliminating the Maximum Taxable Earnings Cap, with the Addition of a New Minimum Benefit at 125% of the Poverty Threshold for Aged Individuals (currently \$1,225/mo.)

The inequality ratios were calculated as follows: the ratio of income at the top 90<sup>th</sup> percentile as compared to the bottom 10<sup>th</sup> percentile, (90/10 ratio), the ratio of income at the top 90<sup>th</sup> percentile as compared to the median (90/50 ratio), and the ratio of the median to the bottom 10<sup>th</sup> percentile (50/10 ratio). Together with the Gini coefficient (a widely used measure of inequality ranging from zero to one, with zero representing perfect equality and one representing absolute inequality), these measures present a range of different perspectives on inequality.

Each of the proposed policy options would be introduced in 2017, without a gradual phase-in process. Scheduled benefits under current law entails taxing all covered earnings at the 12.4% payroll tax rate and applied only to income below the taxable maximum. Option One entails taxing all covered earnings, above and below the taxable maximum or salary cap. Earnings above the current taxable maximum would *not* be credited towards additional benefits for high earners. Option Two (eliminating taxable maximum plus increasing minimum benefit) entails lifting the taxable maximum and reconfigures the

special minimum benefit such that those earning the full amount for that benefit would receive income equivalent to 125% of the federal poverty line. Workers would still be required to have worked more than 10 years in order to qualify for the minimum benefit, where a year of coverage is defined as four quarters of employment. In keeping with current law, benefits are prorated for those under the 30 years of coverage required to receive the full amount.

### **Justification of Model Assumptions**

#### *Elimination of taxable maximum without extending benefits to high earners*

Removing the cap completely, without including the newly taxed earnings in benefit calculations, would go a long way to restoring Social Security to solvency, eliminating an estimated 88% of the projected 75-year shortfall.<sup>17,18,19</sup>

By not including earnings above the tax-max in the benefit calculations, we maximize the potential to observe the policy effects of both improving the long-term solvency of Social Security, and of reducing economic inequality. Historically, over half of the additional payroll tax revenue attributable to tax-max increases has “leaked” into benefits for higher earners.<sup>20</sup>

#### *Addition of maximum benefit at 125% of poverty threshold, change indexing to wage growth*

Policy advocates have criticized the minimum benefit because it is meager and reaches fewer beneficiaries each year. Its declining relative value, which is now below the federal poverty level, is due mainly due to indexing its benefits to prices rather than wages, as is the case with standard Social Security benefits.<sup>21</sup> Over time prices have grown more slowly than wages, which has also stalled in recent years. Our proposal addresses both of these issues, raising the full benefit amount to 125% of the annual poverty guideline for single individuals and indexing its growth to wage growth.



## About MINT7

From The Urban Institute's Primer on MINT7: <sup>22</sup>

"MINT7 is based on a micro-level data file of actual and projected individuals born between 1926 and 2067. It starts with a large sample of individuals from the Survey of Income and Program Participation (SIPP) with a rich set of income and demographic characteristics. Individuals in SIPP who were born prior to 1980 are linked to their SSA and other government records on earnings, benefits, and mortality."

"MINT7 projects current law scheduled Social Security benefits. The long-term projections do not reduce benefits when OASI or DI trust fund balances are depleted, although the strength of MINT is that it allows the user to examine the distribution of income under alternate Social Security policy."

## Model Results

To capture the effects of each of our policy options over time, the focus here is on their impact on four inequality measures in 2030, compared to their projected state under current law in 2020 and 2030.

Social Security Policy Options: Impact on Inequality Measures Over Time								
	2020 (ages 31-94)				2030 (ages 31-104)			
	Gini Coeff.	Ratios			Gini Coeff.	Ratios		
		90/10	90/50	50/10		90/10	90/50	50/10
<b>Current Law</b>	0.500	8.256	3.488	2.367	0.470	7.960	3.469	2.295
<b>Option One</b>	0.490	8.256	3.488	2.367	0.470	7.960	3.469	2.295
<b>Option Two</b>	0.490	8.207	3.487	2.353	0.460	7.742	3.466	2.234

## Impact on Inequality Measures in 2030

With no changes in current law between 2020 and 2030, inequality as measured by the Gini coefficient, is projected to decrease from 0.50 to 0.47, a reduction of 0.03. Removing the cap on taxable earnings (Option 1) produces no further change in the Gini coefficient. Adding the new minimum benefit and

removing the salary cap (Option 2) reduces the Gini coefficient to 0.46, which represents a reduction of 0.01 compared to current law in 2030, and 0.04 with respect to current law in 2020.

The 90/10 ratio is projected to fall by 0.296 between 2020 and 2030 with respect to current law.

Removing the cap on taxable earnings again produces no change from current law in 2030. Adding the new minimum benefit and removing the salary cap reduces the 90/10 ratio by 0.218 compared to current law in 2030, and represents a reduction of 0.514 compared to current law in 2020.

The 90/50 ratio is projected to fall by 0.019 between 2020 and 2030 with respect to current law.

Removing the cap on taxable earnings produces no change in the 90/50 ratio with respect to current law in 2030. Adding the new minimum benefit and removing the salary cap reduces the 90/50 ratio by 0.003 as compared to current law in 2030, which represents a reduction of 0.022 with respect to current law in 2020.

The 50/10 ratio is projected to fall to by 0.702 between 2020 and 2030 with respect to current law.

Removing the cap on taxable earnings produces no change in the 50/10 ratio with respect to current law in 2030. Adding the new minimum benefit and removing the salary cap reduces the 50/10 ratio by 0.061 as compared to current law in 2030. This represents a reduction of 0.133 compared to current law in 2020.

### **Impact Factor**

Taking current law 2020 as a starting point, and projecting out to the end of our analysis in 2030, option two produces the most substantial impact on inequality. In light of this, it is useful to compare the effect of option two to the effect of the passage of time under current Social Security law.

When we compare the Gini coefficients under current law in 2020 to the Gini coefficient under option two in 2030, we observe that the total effect of the policy over time is a reduction of .04. This can be

decomposed into .03 that would have taken place under current law, and 0.1 due to the change in policy. This means that the current law impact on inequality is 3 times that of our policy proposal.

The total effect of option two over time on the 90/10 ratio is a reduction of 0.514. This can be decomposed into 0.296 that would have taken place under current law, and 0.218 due to the change in policy itself. This means that the current law impact on inequality exceeds that of option two by a factor of 1.36.

The 90/50 ratio is reduced by 0.022 in total through the effects of option two by 2030. This can be decomposed into 0.019 that would have taken place under current law, and 0.003 due to the proposed change in policy. The current law impact on inequality thus exceeds that of option two by a factor of 6.33.

The total effect of option two over time on the 50/10 ratio is a reduction of 0.133. This can be decomposed into 0.072 that would have taken place under current law, and 0.061 due to the change in policy itself. The current law impact of time on inequality thus exceeds that of option two by a factor of 1.18.

## **Implications**

Removing the cap on taxable earnings for Social Security represents a shift from what is now a regressive tax to a flat tax of 12.4% on all wage income. Since the flat-tax is not proportional, it effectively remains regressive. Thus, it does little to address overall wage income inequality in the U.S.

A significant amount of inequality reduction within this model is attributable to the passage of time under the current structure of Social Security policy, not to the implementation of either proposed policy option. The most effective policy option involves increasing the special minimum benefit, as

compared to only removing the cap on earnings. In all likelihood this explains why the largest declines in the inequality measures used here are illustrated in the 90/10 and 50/10 ratios—raising the minimum benefit will have the largest impact on the bottom 10 percent of the income distribution. This has two implications for income inequality:

1. Further increases in benefits going to low earners will be more effective than extending current taxes to the highest earners alone.
2. The current tax rate of 12.4% will not sufficiently affect the trillion dollars plus in wage income going untaxed to make a substantial impact on income inequality.

While removing the cap on taxable earnings is a valuable tool for addressing Social Security's actuarial balance into the future, it will not make an appreciable dent in wage income inequality alone. We join with other policy experts who recommend that Social Security's modest benefits be expanded,<sup>23</sup> particularly for those at or below median earnings. However, in order to have a greater equity-producing capacity, Social Security would need to adopt a progressive taxation scheme in which payroll taxes are indexed to earnings and benefits and are capped for high earners, particularly those in the top 10% of the income distribution.

### **Areas for Further Research**

The line of research explored here has significant potential to be extended. Proposed changes to Social Security policy should be analyzed with respect to their potential impact on inequality and meeting the retirement needs of low-income earners, rather than only their impact on Social Security's actuarial balance. Looking forward to future research in this area, we've identified policy proposals whose effects on inequality are worth exploring:

- Adjusting the payroll tax such that it scales with income, rather than remaining fixed
- Broadening the payroll tax to include other forms of income, such as capital gains and dividends, rather than just wage income
- Introduction of new bend points such that lower income retirees keep a higher percentage of Social Security benefits
- Increasing the special minimum benefit and modifying the requirements for receiving it such that full coverage is more easily attainable; for example, allowing for partial years rather than requiring four consecutive quarters of coverage

Leveraging our existing institutions to address new social and economic problems is a policy strategy with significant potential. In an era of heightened economic inequality, further exploration of policies and programs that can reduce it are paramount.

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